

SUBSTITUTE FORM PTO-1449
(MODIFIED)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
01568/008003

SERIAL NO.

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

(37 CFR 1.98(b))

FEB 08 1999

APPLICANT
Mark W. Miles

FILING DATE

GROUP

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER							ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	3	6	5	6	8	3	6	4/1972	de Cremoux et al.	359	261	
	AB	4	7	8	6	1	2	8	11/1988	Birnback	359	245	
	AC	5	0	7	8	4	7	9	1/07/92	Vuilleumier	359	290	
	AD	5	7	8	4	1	9	0	7/21/98	Worley	359	291	
	AE	5	8	2	5	5	2	8	10/20/98	Goosen	359	291	
	AF												
	AG												
	AH												
	AI												
	AJ												
	AK												

 11002 U.S. PTO
 10/082397
 02/25/02

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AL							
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 GROUP 2100

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	AQ							
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EXAMINER

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FORM PTO-1449
(PTD)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
01568/208003

SERIAL NO.

INFORMATION DISCLOSURE
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(37 CFR 1.98(b))

APPLICANT
Mark W. Miles

FILING DATE

GROUP

1002 U.S. PTO
10/082397

02/25/02

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER							ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	4	7	4	8	3	6	6	05/31/88	Taylor			
	AB	5	4	9	7	1	7	2	03/05/96	Doherty et al.			
	AC	5	5	0	0	6	3	5	03/19/96	Mott			
	AD	5	6	3	6	0	5	2	06/03/97	Arney et al.			
	AE	5	7	1	0	6	5	6	01/20/98	Goossen			
	AF												
	AG												

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AH							

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	AI	"Light Over Matters", June 1993, Circle No. 36						
	AJ	Miles, Mark, W., "A New Reflective FPD Technology Using Interferometric Modulation", Society for Information Display '97 Digest, Session 7.3						
	AK	Newsbreaks, "Quantum-trench devices might operate at terahertz frequencies", Laser Focus World May 1993						
	AL	Winton, John M., "A novel way to capture solar energy", Chemical Week, May 15, 1985						
	AM	Aratani, K., et al., "Surface micromachined tuneable interferometer array", <u>Sensors and Actuators</u> , 1994, pp. 17-23						
	AN							

EXAMINER

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Substitute Disclosure Form (PTO-1449)

SUBSTITUTE FORM PTO-1449
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U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.
01568/ 008065

SERIAL NO.

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APPLICANT
Mark W. Miles

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GROUP

(37 CFR 1.98(b))

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER							ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	5	3	1	1	3	6	0	05/10/94	Bloom et al.			
	AB	5	4	0	1	9	8	3	03/28/95	Jokerst et al.			
	AC	5	4	5	9	6	1	0	10/17/95	Bloom et al.			
	AD												
	AE												
	AF												
	AG												
	AH												
	AI												
	AJ												

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AK							
	AL							
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OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

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SUBSTITUTE FORM PTO-1449
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
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	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AL	WO 95/30924	16Nov95	PCT	G02F 1/31			
	AM							
	AN							
	AO							
	AP							

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

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015681-008203

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Mark W. Miles

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(37 CFR 1.98(b))

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER							ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	5	1	6	8	4	0	6	12/01/92	Nelson			
	AB	5	5	7	9	1	4	9	11/26/96	Moret et al.			
	AC	5	6	1	9	0	5	9	04/08/97	Li et al.			
	AD	4	9	8	2	1	8	4	01/01/91	Kirkwood			
	AE	2	5	3	4	8	4	6	12/19/50	Ambrose et al.			
	AF	3	4	3	9	9	7	3	04/22/69	Paul et al.			
	AG	3	4	4	3	8	5	4	05/13/69	Weiss			
	AH	3	6	5	3	7	4	1	04/04/72	Marks			
	AI	3	8	1	3	2	6	5	05/28/74	Marks			
	AJ	3	9	5	5	8	8	0	05/11/76	Lierke			
	AK	4	0	9	9	8	5	4	07/11/78	Decker et al.			

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AL							
	AM							
	AN							
	AO							
	AP							

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	AQ	Akasaka, "Three-Dimensional IC Trends", Proceedings of IEEE, Vol. 74, No. 12, Dec. 1986, pp. 1703-1714.
	AR	Aratani, et al., "Process and Design Considerations for Surface Micromachined Beams for a Tuneable Interferometer Array in Silicon", Proc. IEEE Microelectromechanical Workshop, Florida, Feb. 7-10, 1993, pp. 230.
	AS	Conner, "Hybrid Color Display Using Optical Interference Filter Array", SID Digest 1993, pp. 577-580.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) (37 CFR 1.98(b))				APPLICANT Mark W. Miles			
				FILING DATE		GROUP	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BA	4 2 2 8 4 3 7	10/14/80	Shelton			
	BB	4 3 7 7 3 2 4	03/22/83	Durand et al.			
	BC	4 3 8 9 0 9 6	06/21/83	Hori et al.			
	BD	4 4 0 3 2 4 8	09/06/83	te Velde			
	BE	4 4 4 5 0 5 0	04/24/84	Marks			
	BF	4 5 1 9 6 7 6	05/28/85	te Velde			
	BG	4 5 3 1 1 2 6	07/23/85	Sadones			
	BH	4 6 6 3 0 8 3	05/05/87	Marks			
	BI	4 6 8 1 4 0 3	07/21/87	te Velde et al.			
	BJ	4 7 9 0 6 3 5	12/13/88	Apsley			
FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION							
		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION YES NO
	BK						
	BL						
	BM						
	BN						
	BO						
OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)							
	BP	Goosen, et al., "Silicon Modulator Based on Mechanically-Active Anti-Reflection Layer with 1Mbit/sec Capability for Fiber-in-the-Loop Appln.", IEEE Photonics Technology Letters, Sept. 1994.					
		Goosen, et al., "Possible Display Applications of the Silicon Mechanical Anti-Reflection Switch", Society for Information Display, 1994.					
	BR	Gosch, "West Germany Graps the Lead in X-Ray Lithography", Electronics, Feb. 5, 1987, pp. 78-80.					
EXAMINER				DATE CONSIDERED			
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Substitute Disclosure Form (PTO-1445)

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Mark W. Miles

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GROUP

(37 CFR 1.98(b))

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	CA	5 0 2 2 7 4 5	06/11/91	Zahowski			
	CB	5 0 4 4 7 3 6	09/03/91	Jaskie et al.			
	CC	5 1 2 4 8 3 4	06/23/92	Cusano et al.			
	CD	5 1 5 3 7 7 1	10/06/92	Link et al.			
	CE	5 2 3 1 5 3 2	07/27/93	Magel et al.			
	CF	5 2 3 3 4 5 9	08/03/93	Bozler et al.			
	CG	5 5 0 0 7 6 1	03/19/96	Goosen et al.			
	CH						
	CI						
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	CK						

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	CL							
	CM							
	CN							
	CO							
	CP							

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	CQ	Howard, "Nanometer-Scale Fabrication Techniques", VLSI Electronics: Microstructure Science, Vol. 5, pp. 145-153, pp. 166-173, 1982.
	CR	Jackson, "Classical Electrodynamics", John Wiley & Sons Inc., pp. 568-573.
	CS	Jerman et al., "A Miniature Fabry-Perot Interferometer with a Corrugated Silicon Diaphragm Support", Sensors and Actuators A., Vol. 29, pp. 151, 1991.

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				FILING DATE		GROUP	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	DA						
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FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION							
		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION YES NO
	DL						
	DM						
	DN						
	DO						
	DP						
OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)							
	DQ	Johnson, "Optical Scanners", Microvasive Scanning Antennas, Vol. 1, pp. 251 et seq.					
	DR	Oliner, "Radiating Elements and Mutual Coupling", Microwave Scanning Antennas, Vol. 2, p. 131 et seq.					
	DS	Raley et al., "A Fabry-Perot Microinterferometer for Visible Wavelengths", IEEE Solid-State Sensor and Actuator Workshop, June 1991, Hilton Head, SC					
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	EA						
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							YES	NO
	EL							
	EM							

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	EN	Sperger, et al., "High Performance Patterned All-Dielectric Interference Colour Filter for Display Appln.", SID Digest, 1994.
	EO	Stone, "Radiation and Optics, An Introduction to the Classical Theory", McGraw-Hill, pp. 340-343.
	EP	Walker, et al., "Electron-beam-tunable Interference Filter Spatial Light Modulator", Optics Letter Vol. 13, No. 5., p. 345, 1988.
	EQ	Wu, "Design of a Reflective Color LCD Using Optical Interference Reflectors", ASIA Display '95, October 16, pp. 929-931.

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